# The future

# المستقبل

**Information and Communication Technology ( ICT )**
**Grade 5**
**First term**

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# • Explorer IN Action

## Fred Hiebert

He is an archaeologist and explorer and resides in the National Geographic organization, he studies the past through excavation, observation and writing about archaeological objects and sites

## What is the method of education, training and guidance?

| Concept | It is to provide knowledge and exercise to someone in a subject in which you have a lot of experience |
|---|---|
| Its importance | - It is considered a great way to transfer knowledge and skills<br>- Trainers offer their expertise to others<br>- Explains how to deal with the problems facing the trainers<br>- Helps other trainees to progress faster |

## What tools did the scientist Fred Hiebert use in his daily work?

**Word processing software word**
In writing reports

**presentation program Power point**
To present the results of his research to his team

**spreadsheet program Excel**
In the preparation of graphs

**Paper letters and E-mail**
To communicate more formally and hand over the documents himself

## What does Fred Hiebert do to teach and train others

| | |
|---|---|
| **1- Face-to-face interviews** | • **Is the method that Fred Hiebert generally prefers?**<br>• **But one of the disadvantages of this method is that:**<br>- **Sometimes it is impossible to carry them away on an expedition or people he meets in different countries** |

**In these cases, Fred Hiebert resorts to holding virtual meetings**

| | |
|---|---|
| **2- Holding virtual meetings and meetings using**<br>- **Zoom**<br>- **WhatsApp** | • **Requirements for this method:**<br>- **The dates of these meetings should be organized at a convenient time for everyone (which is difficult due to the difference in timing between countries)**<br>- **It is necessary to follow up the meetings and virtual meetings with comments and official remarks in an email or Word document to ensure that all participants receive information** |

**Q-Why has information sharing become an essential part of our daily life ?**
**To make people more experienced and understand the topics and get all the information**

**Example: how to share information in the Ministry of education and technical learning: students receive recordings via satellite broadcasting channels (educational channels) students receive videos for each subject through our school on YouTube**

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## • Questions

**Q1: put the ( √ ) sign in front of the correct phrase and the ( × ) sign in front of the wrong phrase:**

1- there are some difficulties when conducting face-to-face interviews due to the distance of people from each other (   )

2- the presentation program is used in the preparation of graphs and calculation tables (   )

3-  transferring experiences helps others to progress faster (    )

4- the time difference between countries makes it difficult to follow meetings and meetings when they are held on platforms (    )

5- there are many ICT tools for information exchange (    )

**Q2: pray from Column (A) what fit from Column (B):**

| | Column (a ) | | Column (B ) |
|---|---|---|---|
| 1 | A YouTube channel with a lot of videos for school subjects | A | Your e-mail messages |
| 2 | One of the platforms that enables communication with people | B | Fred Hiebert |
| 3 | One of the ways to communicate formally | C | Power point |
| 4 | Archaeologist and explorer studying the past through archaeological excavations | D | WhatsApp |
| 5 | Presentation program | E | Our school |

**Q3- complete the following phrases, as appropriate, from the brackets:**

(National Geographic-word processor-satellite channels-calculation tables-progress)

1- program ............................... Used in writing reports

2- knowledge advancement and transfer of skills and experience helps to ..................... More quickly

3- Fred Hebert is an archaeologist and explorer in an organization ...............

4- a program .......................... It is used in the preparation and expression of graphs

5- The Ministry of Education made sure that students obtained educational recordings through .....................

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# • Computer accessories

## Computer accessories

### Flash memory
Used to transfer files from one computer to another

### Ethernet port
Connects to an Ethernet wire and Ethernet is more stable and faster than wireless connections

### Router
It is a device that connects a computer to the internet via a Wifi or Ethernet wire

### External hard driver
Which is like hard but works better

### Ethernet cable
It is a wire that connects the computer to the router (router )

### High Definition Multimedia Interface (HDMI)
A wire that transmits sound and image to and from devices

## Units of measurement

- 1- Terabytes = 1024 GB
- 2- Gigabyte = 1024 MB
- 3- Megabytes = 1024 KB
- 4- Kilobyte = 1024 bytes
- 5- Byte = 8 bits
- 6- Bit smallest unit of measurement = (1-0)

Note: 1 byte = 8 bits = one character, like a word, each needs 2 bytes, i.e. 16 bits
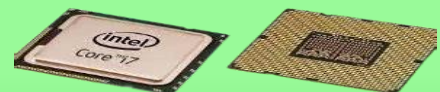
### 7- Mbps megabytes per second:
A unit of measurement used to measure the speed of the internet network

### 8- GHz gigahertz:
A unit of measurement for the number of cycles to be executed by the processor and the higher the number of cycles, the higher the processor speed per second

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| M | The problem | The reason | Solution |
|---|---|---|---|
| 1 | Large files or a large presentation | Lack of storage space | Close some programs |
| 2 | Inability to store files | Insufficient space | Transfer old files to an external drive |
| 3 | Poor network connection during a video conference | Weak and slow wireless internet connection | Try a fast wired Ethernet network |
| 4 | Home internet does not work | Disconnection of communication | Use Ethernet or contact your ISP |

# •Questions

**Q1: complete the following phrases as appropriate:**

1- from the tools attached to the computer ................... And ..................... And ..................

2- ..................... It is a wire that connects the computer to the router

3- ..................... It is a wire that transmits sound and image from and to devices

4- ..................... A device that connects a computer to the internet via Wi-Fi or the internet

5- one of the units of measurement is the storage capacity .................... And ....................... And ...................

**Q2: put a sign ( √ ) or a sign ( × ) in front of the following phrases :**

1- a gigabyte unit of measurement is equal to 1024 kilobytes    (      )

2- a terabyte unit of measurement is equal to 1029 megabytes   (      )

3-  the unit of measurement of a kilobyte is equal to 1030 bytes (      )

4- the bit is equal to the smallest unit of data or measurement   (      )

5-  gigabytes equals 1024 megabytes (      )

6- an Ethernet Wire is a device that connects a computer to the internet via Wi-Fi or the internet (      )

7- flash memory is a wire that connects the computer to the router (      )

8- there are no solutions to the problems you face while using the computer (      )

9-  Ethernet connection is better than wireless connection (      )

10-  the higher the number of cycles, the faster the processor (      )

**Q3: answer what is coming:**

1- List 3 components of computer accessories

2- ...........................   2- ..........................   3- ...............................

3- mention one of the problems that may happen to you while using the internet and solve it

4- ...........................................................................................................

# • Networks

## Computer network (LAN)

It is the connection of two or more computers with each other to exchange important information and data

## First: what is the internet

It is a network that connects computers and people using that network from all over the world

## What do we need to connect your computer to the internet?

We need a gateway such as a router that connects the computer to the service provider (ISP)

such as: internet service provided by Egyptian companies to citizens

## What is the World Wide Web (WWW)?

It is a global network and part of the internet and consists of web pages and people can navigate between them

Example: The Egyptian Knowledge Bank is available on the web

## Secondly: what is an intranet

It is a private network limited to a group of people connected by this network together

Such as: A Business Network, a school, or a specific institution

## Third: the closed network

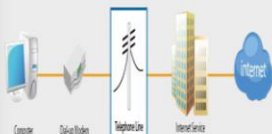It is the network that is in the computer lab at school and connected by wires to share files

## Important information

| 80S | Late 80s | 90S | 2000+ |
|---|---|---|---|
| In the Eighties of the previous century | The late eighties of the last century | In the nineties of the last century | Year 2000 and beyond |
| **Internet connection via dial-up:** The telephone line was the method used to connect to the internet (It was impossible to use the phone while using the internet) and the connection was slow but steady | **Digital subscriber line: DSL** It is a high-speed connection that uses the same home phone wires to connect to the internet (which allows using the phone and the internet simultaneously) | **The emergence of the World Wide Web (www)** It is a large collection of web pages that are linked to each other using hyperlinks | **The emergence of Wi-Fi devices** Thus, access to the internet from your smartphone became possible thanks to the mobile internet service and hotspots also appeared (Which allows you to connect to the internet from anywhere) |

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# • Questions

**Q1: complete the following phrases as appropriate:**

1- ..................... It is a network that connects computers and people using that network from all over the world

2- ..................... It is a network limited to people who are connected within a particular work, school or institution

3- types of networks ..................... And ..................... And ..........................

4- ................... Is the abbreviation for World wide web?

5- ..................... A gateway used to connect a computer to the internet

**Q2: put a sign ( √ ) or a sign ( × ) in front of the following phrases :**

1- an intranet is a network that connects computers and people using that network from all over the world (     )

2- the internet is a private network limited to people who are connected to them within a particular work, school or institution (     )

3- the web is the gateway that connects the computer to the internet (     )

4- Gateway is a gateway used to connect a computer to the internet (     )

5- the WWW web is the abbreviation of the World wide web (     )

6- the closed network is the one that can be for the computer lab at school and be private (     )

7- there is no Egyptian Knowledge Bank on the internet (     )

8- the Egyptian Knowledge Bank is available free of charge for Egyptians registered in it (     )

9- the router is the only one that connects the computer to the internet service provider (     )

10- The internet is a limited network (     )

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# •Digital communication tools

## Introduction:

- Humans communicate daily using computer networks when using phones to send text messages, buy something online, take lessons, download videos, or run applications and programs
- Companies and organizations also use networks daily to share information privately through closed networks or in general through open networks

### Internet of things

It consists of devices or household appliances connected to the internet via Wi-Fi

You can control it whether you are in the same room or in another city

- Examples of the Internet of things:

(Speakers for listening to music-digital refrigerator and washing machine that can be turned on and off using an application - surveillance cameras for remote control)

### Bluetooth

A network technology that connects wireless mobile devices over a short range to form a data transfer network between different devices

### Networks and people of determination

- Gives them more independence at home and in public places

- That independence helps to save money and time and increase their level of self-confidence

- Helps the visually impaired from doing their homework online by using screen readers to get voice feedback and reading in Braille

- Screen readers help the visually impaired to do everything they need from (writing research-accessing documents on the computer)

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1- **digital privacy:** is the adoption of security standards when giving personal information over the internet

2- **website:** a website that exists on the internet with a specific name

3- **online shopping:** buy any item online and you must get permission from parents before buying

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# • Questions

**Q1- complete the following phrases as appropriate:**

1- .................... It consists of devices connected to the internet via Wi-Fi that you can control whether they are in the same room or another city

2- .................... It is a network technology that connects wireless mobile devices over a short range to form a network to transfer data between different devices

3- .................... She is the one who helps people of determination to do everything they need from writing research and accessing documents on their laptop

4- from household appliances that connect to the internet ........................ And ...................... And .................

5- .................... He is known for buying things online

**Q2- put a sign ( √ ) or a sign ( × ) in front of the following phrases :**

1- the internet is a network technology that connects wireless mobile devices over a short range to form a data transmission network between devices different (    )

2- Bluetooth is a network technology that connects wireless mobile devices over a short range to form a data transfer network between different devices (    )

3- Braille is difficult to read for people with disabilities (    )

4- ICT tools helped people of determination to accomplish their daily work with ease (    )

5- there are no household appliances that can connect to the internet (    )

6- screen readers helped people of determination to do everything they need from writing research (    )

7- Bluetooth is a wide-area and large-scale networking technology (    )

8- the internet can reach the largest number of people (    )

9- the Egyptian Knowledge Bank contains a lot of interesting and interesting information (    )

10- Screen readers are used to get audio feedback (    )

## • Internet connection problems and solutions

### Fred Hiebert used several

| Word processing software **Word** | Presentation program **power point** | Spreadsheet Program **Excel** | Paper letters and **E-mail** | Video conferencing **zoom** |

**While using these programs, he is exposed to many problems related to the device or programs**

### Troubleshooting steps

| 1 | Identify the problem – is it a problem with computer components or software Did I make a mistake that caused the problem |
|---|---|
| 2 | Think about different ways you can solve the problem and plan for it |
| 3 | Study the possible solutions to the problem and try each of them until one of them works or you come to your last idea |
| 4 | Which solutions worked And if you can't solve the problem, What did you learn while trying And how can what you've learned help you next time |
| 5 | If you can't find a solution, should you contact your teacher or a family member |

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# Common computer problems and their possible solutions

| M | The problem | Possible solutions |
|---|---|---|
| 1 | The computer slows down when opening an application | Turn it off and turn it back on |
| | | Check for software updates |
| | | Delete some unwanted applications |
| 2 | The search engine is running slowly | Check the Wi-Fi connection |
| | | Make sure the apps on your device are updated |
| 3 | There is no internet connection | Use software to detect and solve Wi-Fi connection problems |
| | | Make sure the router is connected |
| | | Try a new Ethernet wire |
| | | Contact the company's customer service for assistance |
| 4 | Loading is slow | Restart your computer and router |
| | | Check the internet speed |

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## • Questions

**Q1: connect the problem in Column (A) with its possible solution from Column (B)**

| M | (A) | M | (B ) |
|---|---|---|---|
| 1 | The computer slows down when opening an application | A | Making sure the router is connected |
| 2 | Slow loading | B | Checking the internet speed |
| 3 | Internet connection interruption | C | Checking for software updates |

**Q2: put a sign ( √ ) or a sign ( × ) in front of the following phrases:**

1- following the steps of detecting and solving problems is secondary when solving computer problems (    )

2- shutting down the computer and reopening it is one of the possible solutions to the problem of slow loading of the internet site (    )

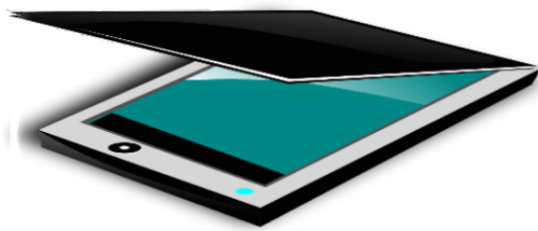3- checking the Wi-Fi connection is one of the possible solutions to the slow work of the search engine (     )

**Q3: arrange the following steps to solve a problem:**

A- asking questions about the problem (   )

B- identification of the problem to be solved (     )

C- using your teacher or a member of your family to help you solve the problem (    )

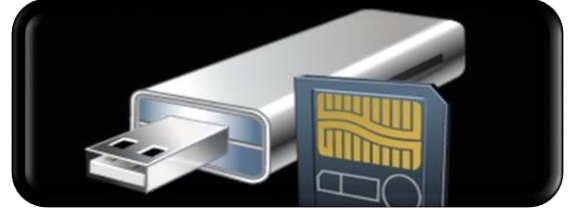D- finding solutions to solve the problem, and if not, then you should look for other ways (    )

**Q4: state one possible solution for each of the following problems:**

1- there is no internet connection despite the safety of the Ethernet wire

2- Slow tablet device when opening an application

3- I tried to download a digital game from the internet, but the download is very slow

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# • Digital file management

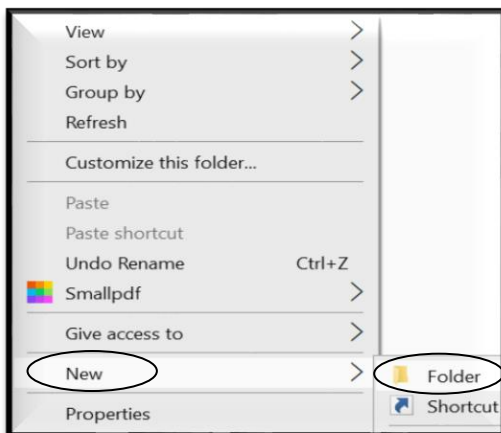## How information is saved, stored and where

**Use the photo scanner and save it for later use**

**Store and share information using flash memory**
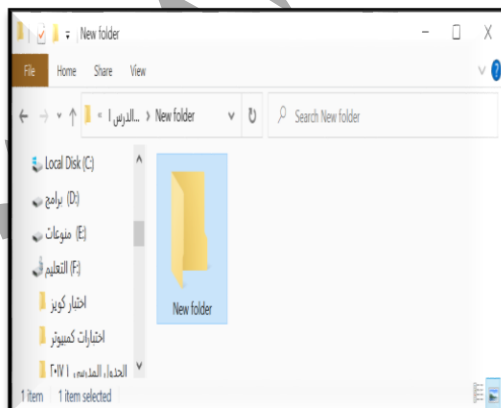
## How to manage files using ICT tools
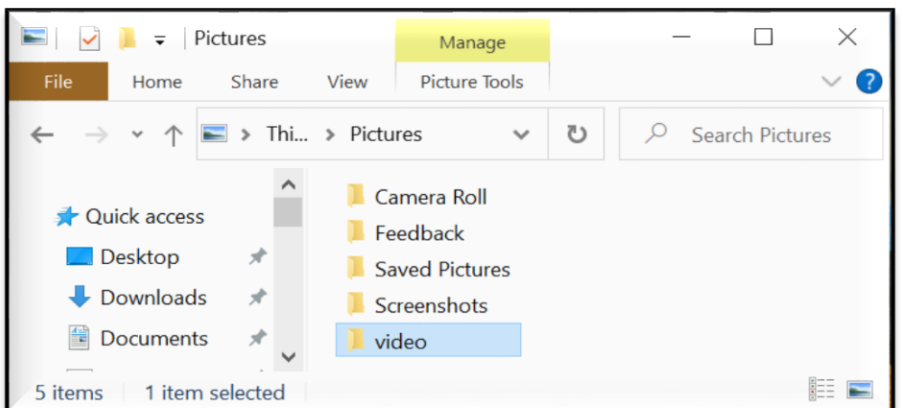
**1- Create the main folder**

| | |
|---|---|
| View | > |
| Sort by | > |
| Group by | > |
| Refresh | |
| Customize this folder... | |
| Paste | |
| Paste shortcut | |
| Undo Rename | Ctrl+Z |
| Smallpdf | > |
| Give access to | > |
| New | > |
| Properties | |

Folder
Shortcut

**2- Add subfolders**

New folder

File   Home   Share   View

‹ › ↑ ‹ New folder › الدرس السادس 5 عربى › الدرس السادس 5 عربى › المحور الاول 5 عربى › تكنولوجيا عربى ›    v   ↻    Search New folder

Local Disk (C)
برامج (D)
منوعات (E)
التعليم (F)
اختار كويز
اختبارات كمبيوتر

New folder

**3- put a title for each file**

New folder

File   Home   Share   View

‹ › ↑ ... › الدرس › New folder   v  ↻   Search New folder

Local Disk (C)
برامج (D)
منوعات (E)
التعليم (F)
اختار كويز
اختبارات كمبيوتر
الجدول المدرسى 2017

New folder

1 item    1 item selected

**4- put files, photos and videos in the correct folder**

Pictures          Manage

File   Home   Share   View   Picture Tools

‹ › ↑ 🖼 › Thi... › Pictures   v  ↻   Search Pictures

Quick access
Desktop
Downloads
Documents

📁 Camera Roll
📁 Feedback
📁 Saved Pictures
📁 Screenshots
📁 video

5 items    1 item selected

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# •Questions

**Q1: put a sign ( √ ) or a sign ( × ) in front of the following phrases :**

1- it is impossible to search for information through the school library (    )

2- keeping electronic copies of private papers is one of the ways to store important files (    )

3- it is preferable to put the photos in the pictures folder on the flash memory for easy access later (    )

4- New is selected from the File list to create a new folder (    )

5- it is advisable to add subfolders inside the main folder (    )

**Q2: complete the following phrases as appropriate:**

**(Scanner - flash memory - name)**

1- it must be put..................... For each file to facilitate the file management process

2- can be used ................... To convert paper images to digital images

3- allow................... File storage and sharing

**Q3: sort the following files into files that should be placed in the photos, files, or videos folder:**

1- a research I conducted in the Arabic language material and wrote It On The Word program

2- videos from your favorite movies

3- a project I did using the presentation software

4- Photos from your last school trip

| Photo folder | File folder | Video clips folder |
|---|---|---|
|  |  |  |
|  |  |  |

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# •Information search strategies

## Steps to search for information to build knowledge

**1- Plan your search**

**2- Specify the exact information you are seeking to access**

**3- Analyze the information you find and verify it critically**

**4- The initial information is subject to evaluation, selection and organization processes**

## Steps to collaborate with colleagues to conduct research

**1- Choosing a research topic**

**2- Divide the topic into smaller sub-topics**

**3- Sharing information with classmates**

**4- Assign each colleague information he is looking for ( collaborate in the search for the same information and then share the results )**

**5- Specify keywords to search for subtopics and it is not recommended to use full sentences**

**6- Sharing the results ( selecting information - organizing it - coordinating it ) in order to prepare a presentation**

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# • Questions

**Q1: arrange the following steps to conduct a research with your colleagues:**

**1- selection of the research topic (     )**

**2- sharing information with classmates (     )**

**3- assign information to each colleague who is looking for it (     )**

**4- dividing the topic into smaller sub-topics (     )**

**5- share the results (     )**

**6- define keywords to search for subtopics (     )**

**Q2: complete the following phrases with appropriate words:**

**1- the research topic should be divided into sub-topics ........................**

**2- Choosing the research topic in conducting any research is the step ............**

**3- the last step of the research is................ Results**

**4- It is preferable to use different words that have meanings ..................**

**When searching online**

# • Sharing information

## Communication using ICT tools

When sharing information electronically, you should think about what is shared over the intranet and what is shared over the internet

**Internet:** it is used to share information over the World Wide Web and is less secure

**Intranet:** used to share information over a closed network and is more secure

## Using the Microsoft Excel program

**1- Steps for alphabetizing information :**

- Go to the toolbar Toolbar
- Clicking on the Data Data tab
- Pressing sort sort

**2- To create simple formulas in cells such as :**

- Combinations ( + )
- Subtraction ( - )
- Division ( / )
- Multiplication ( * )

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## 3- Steps to create a simple formula in Excel

• Click on the cell and Type A sign ( = ) at the beginning of the cell to inform the program to create a simple formula

• Select the cells to be included in the simple formula by referring to the letters (at the top of the column) and numbers (to the left of the row)

• Example 1: to collect the values in Column A, B and C from row number 8, it is written as follows = A8 + B8 + C8

• To sum the numbers from different rows (4, 5 and 6 ) in the same column, let column (A) be written as follows = A4 + A5 + A6

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## • Questions

**Q1: put the ( √ ) sign in front of the correct phrase and the ( × ) sign wrong in front of the wrong phrase :**

1- cell data can be arranged alphabetically in Microsoft Excel (     )
2- the EXCEL program is limited to performing addition and subtraction operations in arithmetic tables (     )
3-  the symbol / expresses the division operation in the EXCEL program (     )
4- it is impossible to use charts and tables to share information (     )
5- there is a single network through which information can be shared electronically (     )

**Q2: complete the following phrases with appropriate words:**

1- selection is allowed ............ In the toolbar in alphabetical order of information in Excel
2- cross the equation ........... About subtracting the value of cell G18 from the value of cell F19
3- cross the symbol ............. About the subtraction process inside the EXCEL program

**Q3: pray from Column (A) to the appropriate from Column (B):**

| M | (A) | M | (B) |
|---|-----|---|-----|
| 1 | Internet | A | Allows information to be shared over the closed network |
| 2 | Intranet | B | = A15 + A3 |
| 3 | Sort property | C | To arrange information alphabetically in Excel |
| 4 | Summing the value of cell A15 and the value of cell A3 | D | A network that allows information to be shared over the World Wide Web |

**Q4: arrange the following steps to arrange the information alphabetically in Excel:**

1- Click on the Data tab (     )
2- go to (Toolbar)         (     )
3- pressing sort (Sort)    (     )

# • Explorer IN Action

## Jeff Kerby

He is an ecologist and photographer who has participated in interesting photographic expeditions in Africa, North America, the Arctic and most of all photographed landscapes

## Photographic expeditions

These are trips to places where a person takes photos of the area he is visiting

## Jeff Kirby's readiness for flights

1- he thinks well about where he will go, what things he will do and how to do his job safely
2- he carries his camera with him in addition to its lenses and batteries
3- he also carries a laptop, hard drives and a drone with him
4- he uses his phone to take a quick picture and navigate using a GPS tool (GPS)

## At the end of each day, Jeff Kirby makes sure :

Create a backup copy of all the photos taken by the camera or drone on an external hard drive or share photos with colleagues using mobile applications

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## Copyright

1- everyone owns the copyright of the photos they take, unless they sell them before taking photos or after

2- Some people use photos taken by others without their permission or buying photos, and it is called "copyright infringement"

3- photographers can protect their works from copyright infringement such as placing a watermark with the name or data

4- Jeff Kirby ensures the protection of his works by not sharing high-resolution photos only with people he trusts

5- Jeff Kirby shares low-resolution photos that don't look good if printed or uploaded to a website

6- Jeff Kirby uses a search through photos to find out if his photos have been used without his permission

7- "copyright infringement" is contrary to Egyptian Law Article 69 of the Egyptian constitution of 2014 provides as follows:

(The state is committed to protecting intellectual property rights of all kinds in all fields and establishes a competent body to take care of these rights)

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# • Questions

**Q1: put the ( √ ) sign in front of the correct phrase and the ( × ) sign in front of the wrong phrase:**

1- it is necessary to prepare well and plan before taking photographic trips ( )

2- everyone owns the rights to publish the photos they take ( )

3- adding information related to Image copyright protects it from copyright infringement ( )

4 - you can use the mobile phone camera to take pictures of animals ( )

**Q2-choose the correct answer from the following options:**

1- must ................ To protect images from copyright infringement

(Put a voice tag – do not put any tags – put a watermark-delete the watermark)

2- creating backup copies of your important photos helps you..............

(Delete photos – send photos to your friends – save photos securely-share photos with your colleagues)

3- photos can be shared with colleagues quickly using ...............

(Mobile phone-digital camera-GPS-drone)

**Q3- complete the following statements from the brackets:**

(High resolution-owner's permission-owning photos)

1- means ................ Have a legal right to publish or sell photos

2- copyright infringement or the use of photos taken by others without ................

3- You can post related photos ................ Online protection against copyright infringement

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# • Protecting ourselves and our information

## Stolen data

1- Computer hackers use the internet to break into computer systems

And steal personal information such as (your name – address - date of birth- passwords) **this information is called "personally identifiable information" (PII or Personally Identifiable Information)**

2- The hacker can use the email address and password of one of the people to send a virus to all the email addresses in your email or he can use the bank account number of an adult to steal his money
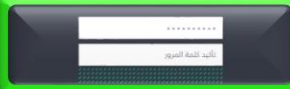
### Maintaining the security of personally identifiable information

Limit the personal information you share online

Not subscribing to a website that asks for too much personal information

Use strong passwords containing letters, numbers and special signs

Use different passwords for each site you register on ( because if he finds out the password for one site, he will be able to access all the other sites )

Use antivirus software on all devices

Make sure to update devices regularly as updates include changes that maintain data security

## Lost files

Files that are created or stored on devices must be protected from viruses, from software-related problems, or from human errors such as falling and crashing your laptop

## File protection methods

Creating a backup copy of it, such as using some applications and software that automatically create backup copies of files

Using a device to save files and connect it to a computer, such as flash memory or an external hard drive, which is a safer way to copy and save files

## External hard drive



It is one of the accessory devices that can be used to save files securely and create a backup copy of important and private files to prevent the possibility of losing them on the device



The hard drive is the largest area of flash memory

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# • Questions

**Q1: put the ( √ ) sign in front of the correct phrase and the ( × ) sign in front of the wrong phrase :**

1- limit the personal information you share online (     )

2- do not subscribe to a website that requests too much of your personal information (     )

3- use different passwords for your different online accounts (     )

**Q2: aim for the underlined:**

1- the name is one of the general identification information

2- hackers use people's email address to send them gifts

3- the hard drive is smaller than the flash memory in terms of space

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# • Password security

## Phishing scams

Is sending a message via email or social media applications looks real but it is not

## Types of phishing

1- send a message telling you that you have won a prize, but you need to give your bank account number to get it

2- a type that urges you to act quickly when you open one of the attachments of the fraudulent message or the file attached to it and the data theft program is installed on your device or asks you for bank account details

3- these messages can be identified by containing spelling and grammatical errors and requests to obtain a lot of personal data

4- there is another type of phishing that is done by text messages instead of e-mail and is called Smishing

## Password management software

1- the password management program generates strong and different passwords for each of the user accounts

2- it also allows the service to evaluate passwords if they are very weak or if they have been used before

3- Password management software alerts the user if their passwords have been stolen online

## Multi-Factor Authentication

Providing at least two ways to introduce the user about himself often combine a factor that the user knows such as

• **Password or pin identification number**

• **And another factor that the user has, such as an email, a one-time code, or a personal question**

1- when the user enters the password for his account on a game website, for example, he will receive a text message to verify his identity (the text message contains a code that the user must enter on the site to make sure that he is really the account owner)

2- the user cannot log in to the site and start playing after completing both steps

Multi-factor authentication ensures that hackers who gain access to user passwords online through data breaches or phishing attacks cannot access personal accounts because they do not have the second authentication factor (which only the user has)

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# • Questions

**Q1: put the ( √ ) sign in front of the correct phrase and the ( × ) sign in front of the wrong phrase:**

1- phishing is sending a real email message to users (      )

2- the password management program generates the same password for each of the user accounts (      )

3- multi-factor authentication ensures access of hackers to the user's personal accounts (      )

**Q2: Complete the following phrases with appropriate words:**

1- multi-factor authentication combines a factor that the user knows and a factor ................. The user

2- the password management program allows alerting the user if their passwords have been compromised ......... Via the internet

3- A text message is sent with a code valid for a period of time ................ To verify the identity of the user

# •How to deal with fake websites

## Fraudulent websites

These are sites that include fake positions to obtain the user's personal data such as (name-address-credit card number)

**Such as: some online shopping sites that do not send items purchased incorrectly**

## Intimidation software

These are programs that include fake warnings indicating that there is a problem with the computer and the need to download a certain program, in addition to fraud through bonuses and prizes that offer a prize that is not obtained

## How fraudulent sites work

**• All fraudulent websites operate according to the same principles:**

1- trying to lure the user by arousing his enthusiasm and attracting his attention

2- an attempt to penetrate the user's privacy by obtaining his personal information or hacking his device

3- exploitation of the sites for the information that I found about the user in a bad way or the possibility of hacking his device to get money

## How to avoid fraudulent sites

1- Always check the locator محدد which is the location address

2- check for spelling or grammatical errors (the reliable source will be well written with almost no errors)

3- conduct an internet search to find out if the site being used is a known fraudulent site

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**4-** in general, if something starts out incorrect, the site is most likely a fraudulent site

**Important note**

- An adult person, such as parents or teachers, should be informed when exposed to fraudulent sites or call the child's helpline or the General Directorate for combating cybercrime
- The service provider, the e-store and the bank that is being dealt with must be informed about this fraudulent website with the help of a teacher or a family member

**Analysis of the information site URL**

- All URLs consist of three main parts:

**1-** **Protocol:** specifies how to transfer information such as http and https

**2-** **The name of the resource name:** it is the server of the network web server or the desired website and the name of the resource indicates who owns the site, the name of the resource often ends with Com – Edu - Gov – org - net

**3-** **File path file path:** represents the last part of the URL and specifies the name of the resource to which the electronic link gives access

## https: // www.ekb.com // index.html

| Protocol | Resource Name | File path |

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# • Questions

Q1: put the ( √ ) sign in front of the correct phrase and the ( × ) sign in front of the wrong phrase:

1- the locator consists of four main parts (    )

2- the matter must be hidden if you fall victim to one of the fraudulent websites ( )

3- all fraudulent websites operate according to the same principles (    )

4- fraudulent websites are free from spelling and grammatical errors (    )

Q2: Choose the correct answer from the following options:

1- any of the following methods will help to avoid fraudulent websites

A- checking the connection of the computer to the router

B- checking for spelling and grammatical errors on the site

C- ensure that the password is correct

D- experimenting with a different Ethernet wire

2- it can be B.............. When a person falls victim to a fraudulent website

A- Ministry of Education

B- the General Directorate for combating internet crimes

C- National Geographic

D- Egyptian Knowledge Bank

3- Clarifies .............. Who owns the website and is the network server?

A- protocol

B- supplier name

C- file path

D- GPS positioning system

# • Intellectual property rights

## Digital content

Copyright law protects printed and digital content by granting creators and authors legal protection for their works it is illegal to take content from the internet and copy it in school reports

## Copyright

1- the international copyright symbol is the letter C with a circle around it ©

2- copyright protects the works of creators and authors and covers multiple types of creations and works

3- copyright protects photos, music, movies, games, computer programs and websites

4- copyrights of websites usually appear at the bottom of the main page

5- when using copyrighted content, you must respect the owner's work and request permission before using it and assign it to the owner

## Important note:

• If you use someone else's artwork on your social media account or download a TV episode from YouTube You Tube, you have used copyrighted content

• **Creative works that are not covered by copyright are:**

1- works that are classified as public property

2- facts and facts

3- discoveries

4- creative works that have passed 50 years since the death of the owner

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- When doing research, for example, it is not allowed to use only a small part of the writings of the person from whom it will be quoted
- There are two ways to use other people's writings:
  1- it is the transfer of words as they are unchanged
  2- it is the reworking of ideas in a special way
- The names of the authors should be mentioned in both cases

**Pictures**

- Images are also covered by copyright protection

- When using an image, its title, the name of the painter or photographer, the link to the original version of the image and the type of copyright protected by it must be mentioned

- The user can create his own photos or take them in case he does not want to get permission or buy photos

**Public ownership and Creative Commons**

- Sources that are in the public domain and have a Creative Commons license can be used without obtaining the owner's permission
- Public ownership includes creative works that are not covered by copyright
- Creative works usually enter the public domain 50 years after the death of the owner, according to Egyptian law
- When searching for images online, the results can be filtered to show only images that hold a Creative Commons license

**Creative Commons license**

Giving permission by the creative employer to reuse the work anytime, anywhere

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## • Questions

**Q1: complete the following phrases with appropriate words:**

1- must be mentioned ............. Writers when using their words or ideas

2- the copyright law protects the printed content and ...............

3- the state symbol of rights ............. Is the letter C

4- it is important to order........... Before using copyrighted content

5- it is permissible to use a part ........... From the writings of the transferred person when preparing a research paper

**Q2: pray from Column (A) to the appropriate from Column (B):**

| (A) | (B) |
|---|---|
| 1- use of copyrighted content<br>2- public ownership<br>3- Creative Commons license | A- includes creative works that are not covered by copyright<br>B- giving permission to reuse the work by its owner<br>C- when downloading a TV episode from YouTube |

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# • Using digital sources

## Use of reliable sources

1- identification of reliable electronic sources when conducting digital research
2- typing the site address in the search engine (URL) Uniform Resource Locator
3- using a teacher or a member of your family while browsing a website for the first time
4- the best way to find reliable sites is to follow the sites suggested by teachers such as (Egyptian Knowledge Bank)

## Comparison of facts and Opinions

| M | Facts | Opinions |
|---|---|---|
| 1 | Results from research and observation | Based on a person's views and experiences |
| 2 | Can be proved | Cannot be proved |
| 3 | Do not tolerate controversy | Enduring controversy |
| 4 | Applicable to everyone | It does not apply to everyone |

## Use multiple sources and facts

1- it is necessary to use multiple sources during the research to include knowledge of all the important facts of the research topic
2- if two reliable sites include the same information, it often means that the information is correct
3- when using more than one source, be sure to write the notes of the first source and then examine the second source for additional information
4- in the event that two sites contain different information on the same topic, both must be verified reliably and the information is based on facts
5- copyright rules and laws must be followed when using digital sources
6- articles and digital encyclopedias also contain important information
7- there are other sources other than texts such as maps, charts, tables and provide measurable facts
8- reliable photos and videos help to gain information by watching better than reading texts
9- records and databases can also be reliable sources, as they contain multiple research materials such as (books-articles-etc.)

# • Question

**Q1: put the ( √ ) sign in front of the correct phrase and the ( × ) sign in front of the wrong phrase:**

1- opinions are based on the views of a person, so they apply to everyone (    )

2-  using multiple sources during research is not important (    )

3- the presence of the same information in two reliable sites most often means the authenticity of this information (    )

4- copyright rules and laws must be followed when using digital sources (    )

**Q2: choose the correct answer from the following options:**

1- it is important to identify electronic sources ............. When conducting a digital search

(Unofficial - anonymous – reliable - unreliable)

2- produce.............. About the studies and researches that prove the validity of their results

(Opinions – rumors – facts - lies)

3- photos help us to gain information by .............

(Watching – reading – hearing - writing)

4- it is written .............. The website to be visited in the search engine

(Protocol - address / name – date - file path)

# • Advanced searches

## Specific search terms



**1- Defining the topic and research questions**

Example: (Aswan Dam) is not considered a specific research topic, (Aswan dam construction) can be used instead of research questions, for example:

1- what materials were used in the construction of Aswan Dam

2- how many workers built the Aswan Dam

**2- Using research questions to find search keywords for**

Example: the keywords for the first question are: (materials) and (Aswan Dam) the keywords for the second question are: (how many) (workers) (Aswan Dam)

## Accurate search terms

1- use synonyms to increase the accuracy of search words

Example: when you want to search for "the amount of time that people between the ages of thirteen and eighteen spend online per day", the search string search string is used for the words "teenagers' time online "

2- put the search string between the quotation marks "" to narrow the search

3- some search engines suggest search engines keywords and similar searches

4- an advanced search tool uses the Advanced searching tool to combine or exclude keywords or narrow the results to specific Domains such as Edu or Gov

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## Logical factors and search rates

**AND** | The results will include both words
• Example: video games and teenagers

**OR** | The results will include one of the two words
• Example: child or adolescent

**NOT** | The results will not include the words mentioned
• Example: tech gadgets are not phone apps

**" "** | The results will include exactly the words mentioned
• Example: "video games"

**( )** | The priority in the results for what is in parentheses
• Example: (video games ) and teenagers

**\*** | The results will include all forms of the word
• Example: * teenager

## Search results

1- Checking the summary of each result

2- Search for titles related to the search topic and keywords in bold

3- Search for facts that answer the search questions within each result

4- Select the results that contain the answer to the research questions and click on the sources

5- Quickly read the source content and search for titles and topic headers
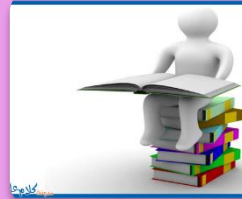
6- Choosing the most matching sources

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# • Questions

**Q1: put the ( √ ) sign in front of the correct phrase and the ( × ) sign in front of the wrong phrase:**

1- the topic and research questions must be specified to obtain accurate research results online (     )

2- it is impossible to narrow search results to certain ranges (     )

3- the use of synonyms makes the search words less accurate (     )

4- the mentioned words are excluded from the search results when using " and " AND (     )

5- the summary of each of the search results should be checked (     )

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# •Documenting information appropriately

## Take notes

| 1- Taking notes makes the research paper easy | 2- You must add the location of the Information URL and the name of the author | 3- Re-read all the blog notes | 4- Refer to the source when there is missing information and search for it | 5- Use my quotation mark to add the author's statements as they are if they are important." |

**Important note:** to search for a source online by keyword, press Ctrl + Foal typing in the search box

## Paraphrasing the text

It is changing some vocabulary, arranging thoughts and building sentences for a text written by someone else

## Use of quotations

1 - quotes support ideas and proofs

2 - when quoting a saying, you must specify its source and the reason for using it

3 - sentence prefixes can be used to share this information

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## Citing sources

| List of works cited | The sources used are listed on the "list of Works Cited"page |

| Perma link | Some online sources include a static link to use when citing the site |

| Using your teacher | The teacher can be used when viewing one of these hyperlinks |

### The method of quoting from a source

| Author's name-Article title | 1- Placing cited sources in alphabetical order ( author's name-Article title ) |

| Source mention | 2- Mention the source, date and electronic link |

### The method of quoting from YouTube

| The name of the uploaded video | 1- Use the name of the uploader of the video as the author |

| Date and title of the video | 2- Setting the date, video address, website name and URL |

**Lesson 8 G5 Ax2**

## • Questions

**Q1: mark ( √ ) what to do when taking notes :**

1- re-reading the notes when writing them down (     )

2- neglect of the important statements of the authors (     )

3- not to refer to the source when finding missing information (     )

4- Add the author's name at the top of the notes (     )

5- neglecting the locator of information الخاص specific to each source (     )